

Claims

1. A plastically deformable implant for insertion into bodily orifices of the human or animal body, which implant is formed by a gel containing fluorocarbon, which gel is not sealed and which is directly introduced into the natural or artificially created bodily opening, with the gel having a polyaphron structure and containing, in addition to the fluorocarbon, water and a minimum of one surface-active agent which is a fluorinated surface-active agent of the general formula $R_F F_{pol}$, where R_F stands for linear or branched perfluoroalkyl groups with more than 5 carbon atoms and R_{pol} stands for a polar hydrocarbon residue with a minimum of one functional group which is selected from $CO-NH(R)$, $CO-N(R)_2$, COO^- , $COOR$, SO_3^- , $SO_2N(R)_2$, CH_2-O-R , PO_2H , PO_3H ($r = \text{alkyl}$) with a molecular weight of $>400 \text{ g/mol}$, a surface tension of the aqueous solution of $<30 \text{ mN/m}$, an interfacial tension in aqueous solution with respect to the nonpolar component of $<25 \text{ mN/m}$, and a concentration of $<0.3\%$.

2. The implant as claimed in Claim 1, characterized by the fact that the fluorocarbon is a perfluorocarbon and/or a partially fluorinated alkane.

3. The implant as claimed in one of the preceding claims, characterized by the fact that the fluorocarbon is an oligomer.

4. The implant as claimed in any one of the preceding claims, characterized by the fact that the surface-active agent is soluble in the fluorocarbon, that it contains linear or branched perfluoroalkyl groups with more than 5 carbon atoms, and that the fluorocarbon/surface-active agent component contains less than 30% of a fluorinated surface-active agent.

5. The implant as claimed in any one of the preceding claims, characterized by the fact that the ratio between the viscosity and the density of the gel is greater than $0.1 \text{ Pa cm}^3/\text{g}$ and lower than $3 \text{ Pa cm}^3/\text{g}$, preferably lower than $1 \text{ Pa cm}^3/\text{g}$.

6. The implant as claimed in any one of the preceding claims, characterized by the fact that after liquefaction, the structure of the gel is reversible and can be completely restored.

7. The use of an implant as claimed in any one of the preceding claims in ophthalmology, in particular as a vitreous body or lens replacement.

8. The use as claimed in Claim 7, characterized by the fact that the refractive index is in a range from 1.334 to 1.338, that the specific weight is greater than 1.05 g/cm^3 , and that the implant is permeable by water-soluble and ionic compounds.

9. The use of an implant as claimed in any one of Claims 1 through 6 in dentistry, in particular for filling extraction cavities in the jaw bone.

10. The use of an implant as claimed in any one of Claims 1 through 6 in the oxygen therapy of the tissue surrounding the bodily orifice.

11. The use of an implant as claimed ~~in any one of Claims 1 through 6~~ as a tissue expander.

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